

More particularly, the rinsing cell has a housing that has a rinse chamber on its interior. The housing has passages for providing rinse fluid to the rinse chamber. The opening permits the tubing to extend into the rinse chamber for receiving a rinse fluid from the cell.

Please note that the rinsing cell has an opening which is not completely closed by the tubing for receiving the tubing. Thus, the opening must place the rinse chamber in communication with the exterior of the cell under the operative condition. (As claimed in claim 18, the opening guides the tubing as the tubing enters and as the tubing is withdrawn from the rinse chamber.)

This opening permits inserting and removing the tubing without disturbing parts of the rinsing cell and provides advantages in efficiency and reduced handling during processing of the tubing as discussed in the application. In particular, providing an opening to a dedicated rinsing cell permits forming an electrochemical processing system that sequentially treats tubing in an automated fashion. The automated process is made possible by providing dedicated cells for electrochemical processes and dedicated rinsing cells for cleaning the tubing after performing the preceding electrochemical process and being able to sequentially move the tubing from dedicated cell to dedicated cell by having the tubing removably extend from the exterior of the cell to the interior of the cell through the opening in the cell.

II

According to the Office Action, claims 13-18 are rejected under 35 USC 102 as being anticipated by Tanaka, U.S. patent 4,278,101; and, under 35 USC 103(a) as being unpatentable over Tanaka.

With reference numerals from Tanaka added to reflect an understanding of the Office Action, the Office Action (as understood by Applicants' attorney) states that: Tanaka

discloses the claimed rinsing cell 21 for rinsing electrolyte from the end of the tubing, the tubing 20 being disposed in the rinsing cell 21 under an operative condition, which comprises, a housing (22, 23, 71) having a rinse chamber (23, 71) disposed about an axis R and having an opening ? for receiving the tubing, such that the tubing extends from the exterior of the cell to the interior the cell ? under operative conditions ? and the housing having a bottom surface 23a, a guide member 26a?, and first supply (48, 24, 63-67, 65-69 for cleaning solution; 49, 29, 64-68, 66-70 for sterilizing solution) and second 71 drain conduits (see claims 1-8 and figure 3). The reference further discloses the slots and opening guides ? as claimed (see figure 3 and claims 1-8). (Attached is a marked-up copy of Fig. 3 to reflect Applicants' attorney's understanding of the Tanaka reference.)

The Office Action also concludes that it would be obvious to modify the disclosure of Tanaka with the teachings contained therein, to modify the size, shape or number of slots to obtain the invention, because such modification would have been within the purview of the ordinary artisan.

Applicants respectfully disagree with both rejections of claim 13. First, Applicants disclose a rinsing cell having an opening which permits the tubing to extend from the exterior of the rinsing cell to the interior of the rinsing cell under the operative condition that delivers rinse fluid to the rinse chamber.

In contrast, Tanaka discloses a rinsing cell which has no opening to receive the tubing such that the tubing could extend from the exterior of the rinsing cell to the interior of the cell under operative rinsing conditions. The endoscope tubing is wholly disposed prior to rinsing "in a spiral form on depressions 26a of support member 26" within the rinse chamber' (col. 4, line 66-67). Thus, there is no opening, which permits the tubing to extend from the exterior of the rinsing cell to the interior of the rinsing cell under the operative condition that delivers rinse fluid to the rinse chamber.

Second, Applicants disclose a rinsing cell having a **guide member extending axially** from the bottom of the chamber and having a housing having a plurality of **passages disposed circumferentially about the guide member and directed toward the rinse chamber**; wherein at least one of said passages is in flow communication with said first conduit for directing rinse fluid toward the tubing under said operative condition. This provides cleaning fluid directed toward the tubing to wash the exterior of the tubing.

In contrast, if Tanaka discloses a guide member (26?), the guide member extends **circumferentially** within the rinse chamber, not axially from the bottom of the rinse chamber; and, not toward the opening for there is no opening. For supplying cleaning water, Tanaka provides feed tube passage 63 and feed tube passage 65 within the rinse chamber. These two feed tube passages axially and are not disposed circumferentially about the guide member. Instead, the **feed tube passage 63 and feed tube passage 65 are rotatably driven about the axis of the Tanaka rinse chamber by drive motor 47 and a belt and pulley arrangement to provide a rotating stream of cleaning water directed toward the endoscope tubing.**

This important structural and functional difference would cause the rotating feed tube passages to strike the axially extending guide member and any tubing that extended from the exterior of the rinsing cell to the interior of the rinsing cell under the operative condition.

Thus, there is no teaching in Tanaka to suggest having such an opening for the tubing or to have the tubing extend from the exterior of the rinsing cell to the interior of the cell. Further, it appears that such an opening and tubing extending from the exterior to the interior of Tanaka if Tanaka were so modified is contrary to the teaching of Tanaka taken as a whole and further would result in an inoperative structure.

For these reasons, Applicants respectfully request the withdrawal of the rejection of claim 13 under 35 USC 102 as anticipated by Tanaka, U.S. patent 4,278,101 and under 35 USC 103(a) as being unpatentable over Tanaka.

II.

With regard to **claim 14**, Applicants' housing has a circumferential manifold which is in flow communication with a plurality of passages for supplying rinse fluid to the rinse chamber. As mentioned above, Tanaka provides cleaning water through axially extending feed tubes (63, 65) while rotating the feed tubes circumferentially about the axis of the rinse chamber. Similarly, Tanaka provides sterilizing solution through axially extending feed tubes (64, 66) while rotating the feed tubes circumferentially about the axis of the rinse chamber. These are very different approaches to providing the cleaning solution, with Tanaka requiring a motor and rotatable components while Applicants providing a simple housing having fixed passages in the housing, not rotating passages as in Tanaka.

With regard to **claim 16**, Applicants' tubing has an inner surface; and, Applicants' guide member is adapted to extend into the tubing. The guide member has an axially extending passage for providing cleaning fluid and a plurality of impingement passages for providing an impingement rinse fluid to the inner surface of the tubing under operative rinsing conditions.

In contrast, Tanaka's teaching is directed to endoscope tubing of the type used for performing a colonoscopy. The endoscope tubing is "an elongated flexible tube internally containing an observation and illumination optical system each formed of a bundle of optical fibers" (col. 1, line 11-14). Accordingly, Tanaka teaches nothing about cleaning hollow tubing, is only concerned with cleaning the exterior of the tubing, and, if support 26 is considered to be a guide member, does not supply cleaning fluid via such a guide member.

Claim 17 is also directed to a guide member for supplying cleaning fluid. Accordingly, for the reason set forth above with regard to claim 16, Tanaka teaches nothing about a guide member for supplying cleaning fluid.

As noted earlier, Claim 18 is directed to the opening for receiving the tubing which opening is adapted to guide said tubing as the tubing is disposed in rinsing cell.

For these reasons, and further for the reasons set forth with regard to the allowability of claim 13, Applicants respectfully request the withdrawal of the rejection of claims 14-18 under 35 USC 102 as anticipated by Tanaka, U.S. patent 4,278,101; and, under 35 USC 103(a) as being unpatentable over Tanaka.

III

Conclusion

In view of the reasons set forth above, it is respectfully requested that the rejections of claims 13-18 under 35 USC 102 as being anticipated by Tanaka, U.S. patent 4,278,101 and under 35 USC 103(a) as being unpatentable over Tanaka, U.S. patent 4,278,101 be withdrawn, with allowance and passage to issue of claims 13-18.

Respectfully Submitted,

By Gene D. Fleischhauer
Gene D. Fleischhauer
Registration No. 27989

GENE D. FLEISCHHAUER
Attorney at Law
16 River Road
North Haven, Connecticut 06473
Telephone (203) 248-4755
Facsimile (203) 248-0727
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63,65 cleaning water
liquid feed tubes
suply spray heads 67,69

sterilizing solution
64,66 liquid feed tubes
supPLY spray heads 68,70

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4,278,101

